

APPENDIX A

Pre-Assessment Data Workshop - Blue Rockfish

March 14, 2007
Monterey, CA 1:00-5:00

Participants:

Brian Cutting - Big Sur (recreational)
Ken Stagnaro - Santa Cruz (recreational)
Josh Churchman - Bolinas (commercial)
Bruce Miller - Crescent City (commercial)
Tom Mattusch - Half Moon Bay (recreational)
William Smith - Half Moon Bay (recreational)
Jim Martin - Ft. Bragg (recreational)

Meisha Key - CDFG
Alec MacCall - NMFS, SWFSC
Debbie Aseltine-Neilson - CDFG
Kirk Lynn - CDFG
Deb Wilson-Vandenberg - CDFG
Bob Leos - CDFG

Where are they?

In the Bolinas area, blue rockfish are present in offshore schools around underwater islands (pinnacles).

Near Half Moon Bay, @ Deep Reef, blues move around the reef out to 30-40 fm, with high numbers wherever found the slightest structure (e.g. small rock piles) and in shallow waters. They are all around the area in November, but by late fall had tailed off.

Groundswell surge pushes blues offshore and can also push them off reefs.

Small schools suspend ("hover") off the bottom with the swell in Santa Cruz, out to about 40-45 fm. It is the surge itself, and not the turbidity that affects them.

Also in Santa Cruz, "deepwater blues" come and go; they are lighter in color.

Off Big Sur, large blues are seen 6-7 miles offshore outside the reef.

Large numbers of variably-sized blues are seen at multiple sites at Pt. St. George (Crescent City).

Juvenile rockfish trawl data suggest northward distribution trend, but it may be difficult to verify adult populations using subsequent fishery-dependent data (with targeting of catch and depth restrictions).

BLUE numbers

Blue rockfish are as prolific as when first seen. In the late 1970s, gill nets began targeting offshore reefs and pinnacles; by 1988 there were low abundances in these areas. The population has come back. (Bolinás)

Blues are rebounding in Half Moon Bay, but numbers are cyclic (due partly to moving around?). At Deep Reef, blues are prolific in shallow waters; the fishing is better than seen in years – haven't seen such numbers since the 1970s.

Increases seen in Santa Barbara, Morro Bay in recent years.

In southern CA, there has been noticeably colder water and an increase in # of fish.

From what has been heard and seen from divers, there have been more fish around the Channel Is – “filling in” areas where once inhabited (with onset of colder waters).

BLUE Biology

An important topic is what do blue rockfish eat and what eats them (predator-prey relationships).

(Bolinás) Blues feed on ctenophores, especially in the spring. Three solid year classes were observed of large fish (up to 3 lbs). They were pelagic, in areas with no kelp.

(Santa Cruz, Deep Reef - HMB) Blues do move around.

Food availability may fluctuate – greater in bays and canyon areas vs. where the coast is straight? Tied to the urchin fishery? As urchins are depleted, there is more kelp to provide a nursery area. Is there a kelp index? Kelp increases are not seen coastwide, however. Runoff is impacting kelp beds in some areas.

Two different morphs have been seen: “Alaskan blues” are hardier, hold their scales better, have larger spots (stripe?); “California blues” can't be kept alive as easily, and have a lighter color than Alaskan blues.

Catch Data comments

During the 1970s – 1988, many blues from the gillnet fishery did not show up in CALCOM (probably listed under “spp unidentified”, “rockfish spp.” categories).

The number of samplers for CPFVs has decreased significantly; in 1980s – 1990s, CPFV operators saw 3+ observers / week (however, most of these observers came from the central/northern CPFV study going on at that time).

The RecFIN data from the early 1980s seem too high, should be about 400 mt from 1980-1985. Blues were not targeted; other spp. were targeted and kept (could target others easily then, use bigger hooks). There was more effort from CPFVs then, but blues make up more of the catch now.

There was more trawl poundage taken than shows during the 1970s due to many midwater trawlers dumping blues. For 2 years in the 1970s (pre-Magnuson Act) there were Russian trawlers in the San Francisco and Monterey areas targeting hake taking

more than 50 tons – much of this discarded. For a short time prior to 1976, joint venture (midwater shelf for widow, bocaccio, chilipeppers, blues in 1976) trawlers also were responsible for much catch, dumping blues. After 1976 the joint venture trawlers went north. Also, there were the domestic widow trawl fleet and local trawlers, with a discard/landed catch ratio of 1:1.

The commercial data from 1980-1988 seems too low. There was “heaven to earth” in the Farallons: blues and olives (no separation), along with blacks. One boat in Bolinas would take 20-30 tons (of blues). Commercial non-gillnet took 100,000 lbs (including blacks). The graph for commercial non-gillnet should use 400 mt from 1980-1988, dropping to 100 mt in 1990 and remaining there. We also may want to look at permits from 1980-1988 for longliners and gillnetters. There were 3 times as many longliners working than CPFVs prior to 1988 - then they got pushed out. During the 1980s there should be more gill net poundage than what is shown. For commercial gillnets, the “white van” catch should be 400 mt in 1980 down to 300 mt in 1986, and then dropping from there to 0 mt from 1988 on.

CenCAL data and rules (size, bag limits) need to be checked and evaluated for analysis prior to use in assessment. Divers can only keep 4 fish, and these must be at least 14” limit (therefore only gives catch of 14”+ fish/hr). Rules were roughly the same for all areas.

Fishery issues

Many larger blue rockfish are lost because they pop off hooks due to soft mouths, so catch may consist of smaller fish. However, large fish that pop up to surface because of extended gas bladders become “floaters” and will also be picked up. The experience of the fisherman plays a part in whether the big ones fall off hooks. It also depends on how the fish are feeding, if they are hungry or swiping at the hook. Their air bladders are out even at 20 fm. The blues are feisty in shallow water, and not so in deeper water.

In Bolinas, the live finfish fishery market is good, with demand high (\$1.85/lb). North of 40 10, they are close and easy to catch. The public will buy 13-14”, 1-1.5 lb fish. Blacks are targeted here, as most blues (“Alaskan Blues” excepted) don’t make the trip to market in good enough shape. There is a limited potential for growth of blues in the live finfish fishery due to survivability to market.

In the Channel Is., MPAs have reduced the area where can fish. It would be good to include four areas for the stock assessment analysis.

Trawl nets took larger fish – caught all sizes but discarded small fish.

Regular gill nets took narrow range of fishes (large fish bounce off net and small ones swim through). Then gill netters started using trammel gill nets more in the San Francisco area; these trammel gill nets are able to take larger fish than regular gill nets.

The CPFV fishery is now more targeted towards blues because of depth restrictions and abundance of blues.

Participants comments

1. Had an opportunity to learn about stock assessments.
2. Getting information from fishermen is important – their views and opinions on catch #'s, which provide information from the field.
3. Science has lectured fishermen – want them to provide anecdotal information, then they go back to own data after leaving room. Today I feel if we're genuinely working together w/DFG.
4. There has been a large reduction in fisheries, with infrastructure falling apart (buyers).
5. First meeting where I feel we're all working together – providing input, feel that scientists/government is listening.
6. Glad I came, good to be involved with stock assessments.
7. Out of all stock assessment people, I appreciate work by Alec. For many spp. deal with data-poor situation, starting to see shift in getting fisherman's view; "B1 factor" – estimates are not correctly capturing take, constrains and puts fishermen into a box. I see we're moving into a more "realistic" place.
8. Helpful to take anecdotal information and put into quantitative terms. Look forward to review process and reviewers' opinions on use of anecdotal data.
9. Good, interesting.
10. Chance to listen to recreational fishermen since I work more w/commercial. Nice to see the willingness for Stock Assessment Team (STAT) to hear changes regarding catch.

Written comments were received by the following who did not attend the workshop:

David Allen
Kenyon Hensel
Gerry Richter
Jim Webb